

Electric motor excited by the use of permanent magnets, particularly for inner rotor or outer rotor motor

Patent number: EP0691727
Publication date: 1996-01-10
Inventor: ACKERMANN BERND DR (DE)
Applicant: PHILIPS PATENTVERWALTUNG (DE); KONINKL PHILIPS ELECTRONICS NV (NL)
Classification:
 - international: H02K1/27; H02K21/14
 - european: H02K1/27B2C1, H02K1/27B2C1B, H02K21/14
Application number: EP19950201772 19950629
Priority number(s): DE19944423620 19940706

Also published as:

US5604390 (A1)
 JP8047189 (A)
 DE4423620 (A1)
 EP0691727 (B1)

Cited documents:

EP0598137
 EP0341630
 JP61203853

Abstract of EP0691727

The motor, particularly an internal or external rotor motor, is energised by means of permanent magnets (7). The motor has motor parts (6,7) movable relative to each other. One of these parts forms a multiple pole exciting field in an air gap, by means of permanent magnets (7). The other motor part has a coil configuration (9) in this air gap. The coil configuration (9) is free from magnetic material. The permanent magnet excited motor parts comprises a cylindrical yoke (17). This has radial slits (18,18a) uniformly distributed around its circumference. Permanent magnets (19) are arranged in these slits (18,18a) and are magnetised in the circumferential direction with the direction of magnetisation alternating from magnet to magnet.

The yoke (17) is made of isotropic permanent magnet material. This is magnetised radially in the yoke sections (22) between the permanent magnets (19) in the slits (18, 18a) such that the resulting magnetic field in the air gap (12) has the same polarity as the magnetic field generated in the slits (18, 18a) by the permanent magnets (19). The permanent magnets (19) in the slits (18, 18a) are made of anisotropic permanent magnet material.

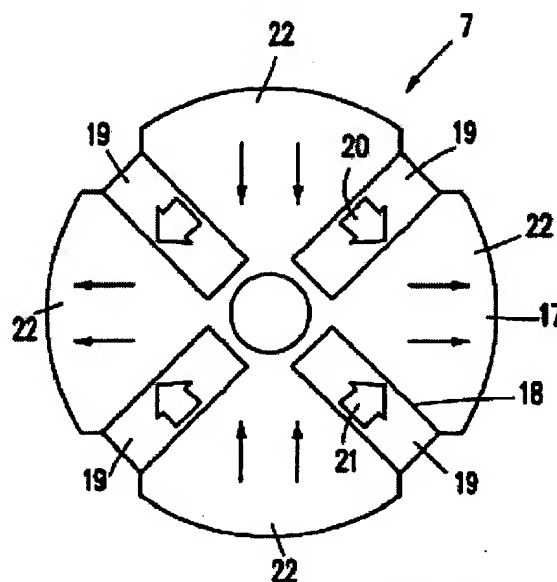


FIG. 2

Data supplied from the esp@cenet database - Worldwide